

Appl. No. : 10/764,986
Filed : January 26, 2004

AMENDMENTS TO THE SPECIFICATION

Please amend Paragraph [0039] as indicated below.

Amendments to the specification below are indicated with insertions underlined (e.g., insertion), and deletions struckthrough or in double brackets (e.g., ~~deletion~~ or [[deletion]]):

[0039] Preferably, the predetermined power density to be delivered to the tissue in accordance with the above methods is selected to be at least about 0.01 mW/cm^2 . In one embodiment, the predetermined power density is selected from the range of about 0.01 mW/cm^2 to about 100 mW/cm^2 . To deliver the predetermined power density at the level of the brain tissue, a required, relatively greater surface power density of the light energy is calculated taking into account attenuation of the light energy as it travels from the skin surface through various tissues including skin, bone and brain tissue. Factors known to affect penetration and to be taken into account in the calculation include skin pigmentation, the presence and color of hair over the area to be treated (if any), and the location of the affected brain region, particularly the depth of the area to be treated relative to the surface. For example, to obtain a desired power density of 50 mW/cm^2 in the brain at a depth of 3 cm below the surface may require a surface power density of 500 mW/cm^2 . The higher the level of skin pigmentation, the higher the required surface power density to deliver a predetermined power density of light energy to a subsurface brain site. The light energy can have a predetermined power density at the subdermal target tissue (e.g., at a depth of approximately 2 centimeters below the dura). It is presently believed that phototherapy of tissue is most effective when irradiating the target tissue with power densities of light of at least about 0.01 mW/cm^2 and up to about 1 W/cm^2 . In various embodiments, the subsurface power density is at least about 0.01, 0.05, 0.1, 0.5, 1, 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, or 90 mW/cm^2 , respectively, depending on the desired clinical performance. In certain embodiments, the subsurface power density is preferably about 0.01 mW/cm^2 to about 100 mW/cm^2 , more preferably about 0.01 mW/cm^2 to about 50 mW/cm^2 , and most preferably about 2 mW/cm^2 to about 20 mW/cm^2 . It is believed that these subsurface power densities are especially effective at producing the desired biostimulative effects on the tissue being treated.